UNIVERSITY OF GONDAR AND ADDIS CONTINENTAL INSTITUTE OF PUBLIC HEALTH JOINT MASTER OF PUBLIC HEALTH PROGRAM

ASSESSMENT OF CLIENT SATISFACTION AMONG ANC ATTENDANTS AT PUBLIC HEALTH FACILITIES, BAHIR DAR TOWN

BY: MULU HAILU (BSc.)

A THESIS SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH OF JOINT MPH PROGRAM OF UNIVERSITY OF GONDAR AND ADDIS CONTINENTAL INSTITUTE OF PUBLIC HEALTH IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR DEGREE OF MASTERS IN PUBLIC HEALTH

DECEMBER 2010
BAHIR DAR, ETHIOPIA

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ADVISORS: EWENAT G/HANNA (BSc, MPH)
PROFESSOR YEMANE BERHANE (MD, MPH, PhD)

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Acronyms

ANC	Ante Natal Care
CI	Confidence Interval
EDHS	Ethiopian Demography and Health Survey
EMoNC	Emergency Maternal and Newborn Care
EPIINFO	Epidemiological Information
FANC	Focus Ante Natal Care
HC	Health Center
HSDP	Health Sector Development Program
HW	Health Worker
MCH	Maternal & Child Health
OR	Odds Ratio
RHB	Regional health Bureau
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

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Abstract

Background

The primary goal of antenatal care (ANC) is to improve pregnancy outcome and ensure the safe delivery of a healthy infant. It is focused not only on detecting and treating medical, obstetrical conditions but also on providing psychological, social and educational assessment. Low ANC coverage is attributed by some to lack of quality in antenatal care service provided to women. According to EDHS at national level 28% of women received ANC from health professional where the Amhara ANC coverage shows only 26.5%. ANC coverage of Amhara region according to HSDP III was expected to be 80% but it is less than 39 percent. This may due to lack of satisfaction since satisfaction is one of the determinants of quality of services.

Objectives

To assesses the level of satisfaction of ANC Attendants of public health facilities at Bahir Dar town.

Methodology

The study was conducted in Amhara National regional state Bahir Dar town. This study used quantitative cross sectional study design. Standard questionnaire was developed for exit interview of pregnant mothers and trained interviewers collected the data. Observation of health facilities and health workers was also done by the principal investigator. Satisfaction score was computed based on a five point Likert scale, ranging from 1 “very satisfied” to 5 “very dissatisfied".

Result

From the total sample size 402 clients, response rate was obtained in all 402(100%) clients. One hundred eighty five (46 %) of the respondents were found to have satisfaction level at and above mean score of satisfaction. 217 (54%) clients were found below mean score of satisfaction. Only time spent with HWs and waiting time to get the service found an association in satisfaction after adjusted confounders.

Conclusions and recommendation:

Generally 54% of pregnant mothers who came for ANC service are dissatisfied. Only time spent with health care provider and waiting time were the significant predictors of satisfaction level. So Action to be taken on waiting time and time spent with health care provider, in order to minimize dissatisfaction.

1. Introduction

1.1 Background

Pregnancy and childbirth are natural and often eventful processes that many women are at risk for developing complications during pregnancy and childbirth. Complication of pregnancy and childbirth are the leading causes of disability and death among women in the reproductive age (15- 49) years in developing countries (1).

According to 2008 report released from WHO, UNICEF and UNFPA, the number of women dying due to complication during pregnancy and child birth has decreased by 34% from an estimated 546,000in 1990 to 358,000in 2008. Annual estimate to decrease Maternal Mortality is 5.5% but it decreases only 3.2%. Maternal mortality is generally estimated as 358, 000 each year, of which 99% occur in developing countries with sub Saharan Africa and south Asia counting for 57% and 30 all deaths respectively(2).

The lifetime risk for of dying a woman in developing countries from pregnancy related causes during her life time about 36 times higher compared to a women living in developed countries (3). Maternal mortality is only the tip of the ice-berg i.e., for every mother who dies a maternal death, 15 to 20 others will suffer serious long-term complications, while over 100 will suffer acute complications (3,4). Over 90% of low birth weight infants (infants with a birth weight less than 2,500 grams) in the world are born in developing countries. These babies account for 30% to 40% of all infant deaths (4). According to Ethiopian Demographic Health Survey (EDHS 2005), MMR is 673 per 100,000 live births.

Systematic antenatal care was first introduced early in the 20th century in Europe and North America and is now almost universal in the world (5). Antenatal care is an important determinant of high maternal mortality rate and one of the basic components of maternal care on which the life of mothers and babies depend (6). Additionally, it is one of the “four pillars” of safe motherhood initiative, as formulated by the Maternal Health and Safe Motherhood Program, Division of Family Health, of the World Health Organization. Among the various pillars of Safe Motherhood, antenatal care remains one of the interventions that have the potential to significantly

reduce maternal morbidity and mortality when properly conducted. The other three are family planning, clean/safe delivery and essential obstetric care (6).

The package was devised to ensure that women should be able to go safely through pregnancy and childbirth and have healthy infants, in other words, to prevent the dreaded outcomes: maternal death, and prenatal and infant death. Studies in rural Nepal explained that Antenatal care is practiced all over the world, the programmes having essentially similar Schedules and content (7).

1.2. Statement of the problem

The primary goal of antenatal care (ANC) is to improve pregnancy outcome and ensure the safe delivery of a healthy infant. It is focused not only on detecting, treating medical, obstetrical conditions but also on providing psychological, social, educational assessment. Moreover, support and interventions as needed to decrease prenatal complication rate (8).

At least in theory, any care offered should be acceptable for the recipients. However, the importance of allowing for patients' views, alongside medical and economic considerations regarding care assessment during pregnancy and childbirth, wasn't stressed until the late 80's and almost only in developed countries(9). According to EDHS at the national level twenty-eight percent (28%) of women received ANC from health professional where as Amhara region ANC from health professional shows twenty six percent (26.5%). ANC coverage of Amhara region according to HSDP III was expected to be 80% but it is less than 39 percent. This may be due to poor quality of services. Satisfaction is one of the determinants of quality of services. If we see the problem, solving satisfaction can improve quality of services.

Therefore, this cross sectional study is intended to assess the clients' satisfaction on ANC service being provided by the health facilities in Bahir Dar Town.

2. Literature Review

2.1 SOCIO DEMOGRAPHIC CHARACTERISTICS

2.1.1 Education

A study conducted on client satisfaction and quality of health care in rural Nepal explained that about 61% of respondents had never attended school (8). Another study conducted in Maichew town Tigray indicated that education is a strong predictor of ANC service utilizations but the extent and nature of relationship between the two is not uniform across social settings (9).

According to Ethiopian DHS 2005, about 75% of women with at least secondary schooling receive antenatal care. Additionally a study conducted in India showed that Literacy affected satisfaction in an inverse way. In Bangladesh and Thailand women with primary education did not differ from women with no schooling in ANC utilization. In Peru and Guatemala women with primary level of education were more likely to utilize ANC services than those no schooling women (10). Similarly, a few studies in Ethiopia revealed that education is a major factor determining utilization of antenatal care services. With increasing literacy, satisfaction appeared to be decreasing. Among the illiterate women 52.2% expressed the service to be excellent and a total of 89.0% of this group felt it was either excellent or good. But only 38.5% of the literate mothers felt so (11).

2.1.2 Economic status

A study in South Africa demonstrated that women who didn't obtain ANC were more likely to be of lower socioeconomic status, higher parity and farther away from healthy services than were ANC- attainders (10). Respondents' suggestions for improving the perceived quality of care in the ANC included engendering more user-friendly attitudes in the health personnel (23.5%), increasing the number of staff (31.0%) and reduction in time spent in the clinic (45.5%) (11).The results obtained overall show that costs per pregnancy to women and providers were lower in the reduced number of antenatal visits model than in the standard antenatal visits model (11). The only characteristic demonstrating a statistically significant association with

utilization of antenatal care was income (17). The odds of reporting high income were 1.75 times among the antenatal care group as compared to women not receiving antenatal care (12).

2.2 NUMBER OF VISIT

A study on satisfaction of women and provider with ANC in developing countries indicated that women under the focused ANC were slightly less satisfied with the number of visit (77% Vs 85.2%), visit spacing (72.7% Vs 81%) and also other studies showed that most women are satisfied on focus ANC however, some women were less satisfied with the reduced number of antenatal visits model when quality of prenatal care, frequency of visits (10).

In the same study conducted by Cochrane collaboration no differences in the quality of care perceived by the women were seen between the two models. More women in the reduced number of antenatal visits model rather than in the standard antenatal visits model would choose the same schedule of visits in the future (15).

2.3 WAITING TIME

On average, 40 patients used the facilities daily, with the average waiting time at those facilities being 30 + 2.5 min. The median waiting time was 19 min (8). A significant proportion of users (34.2%) were not satisfied with the length of time that the facilities were open to the public. About a third (28.2%) of all users were not satisfied with the time they waited to receive care.

The average waiting time for these users was 57.1 + 4.2 min compared with 21.4 + 1.6 min for those who were satisfied. Moreover, patients presenting for maternal care were significantly more dissatisfied (37.6%) than clients presenting for other types of services. With respect to waiting time, the expectations of users were far from reality. Thus, the average waiting time clients would be satisfied with was 10.6 +0.3 min. half the clients considered 8 min the maximum time they could wait in order to be satisfied, whereas only 25% would accept 5.12 min (8). Also, the participants requested that efforts should be made to reduce the waiting time, together with increasing the number of staff in the health centers (12).

Study conducted in India explained that the main reasons for dissatisfaction of some of the clients are the inconvenient timing and the long waiting time which are common

problems in many free service facilities. Results showed that the mean total duration of time spent in the clinic by respondents was 2.53±0.48 hours; the modal time was 2.32 hours, with the minimum time of 1.30 hours and maximum of 4.30 hours (11). In contrast Cochrane collaboration study indicated that majority of women were satisfied with waiting time (15).

2.4 TIME SPENT WITH PROVIDER

Sufficient consultation time is of particular importance for provider–patient interrelations and for appropriate medical management of patients. Study conducted in Bangladesh explained that the average consultation time at the facilities was about 2.33 min (median = 1.5 min). On average, patients coming for maternal care services spent more time with the provider (about 6min; median, 4.5 min) than users of other types of services. Only 8.3% of users were not satisfied with the length of consultation time (8).

Study conducted in Nigeria on quality of services expressed that almost 60% of respondents assessed time spent with the physician as adequate but more than fifty percent (56.1%) of them considered the total time spent in the clinic to be too long, while only 33.6% of respondents considered the total time spent in the ANC as adequate (11). More women were satisfied with the amount of time spent during the visit in the reduced number of antenatal visits model (15)

2.5 PRIVACY

Privacy was felt to be necessary by 19.5% of users, who were almost all women coming for family planning, maternal care, or female care services. However, privacy was maintained for less than half (45.1%) of these clients (8). The major reason given by respondents (75.4%) for non-satisfaction with the over-all perceived quality of care received in the clinic was wasting of time, followed by lack of privacy (11).

It is recommended that ANC service providers should try to maintain privacy during ANC checkup by using a screen between beds in ANC room. As most of the things went well in the MCH hospital, managers should continue maintaining the quality services for the clients (17).

2.6 POLITENESS (COURTESY) OF THE PROVIDERS

Client satisfaction with the overall services provided is a function of the level of satisfaction for each of the variables assessed, satisfaction with the politeness of the provider was the most powerful predictor variable, followed by satisfaction with the provider's respect for privacy, waiting time, and consultation time (8). Also study conducted in India that the centre provides good service; the staffs are friendly and show great care, the doctors give good treatment and also sufficient time to attend to them (14). The majority of respondents (>95%) assessed the health personnel attitude positively (11). Study in Thailand MCH hospital found that most of the respondents (91.8%) were satisfied with the service given and behavior of service providers and comparatively less satisfied with accessibility towards ANC service (77.6%) (17).

2.7 AVAILABILITY OF ESSENTIAL DRUGS

The constant availability of a wide-range of drugs for all the common health conditions was the primary issue most of the respondents felt would keep improving the quality of the health centers and their level of satisfaction with the services. The people would also like doctors to be posted to the health centers to manage complicated pregnancies, childbirth and childhood diseases in addition to other serious diseases in the villages (11).

The satisfied clients, on the other hand, expressed the view that medicines are most often available in this centre. They also said that the centre provides good service; the staffs are friendly and show great care, the doctors give good treatment and also sufficient time to attend to them (16).

Measuring client satisfaction

A growing body of research is discovering what clients want and how to measure client satisfaction. In both developed and developing countries, clients share seven major concerns (19, 20).

3. Objectives

3.1 General Objectives

- To assess the satisfaction of ANC Attendants in public health facilities at Bahir Dar town.

3.2 Specific Objectives

- To determine the level of ANC client satisfaction in the service provision
- To identify the contributing factors affecting client satisfaction in ANC services

4. Methodology

4.1. STUDY SETTING

The study was conducted in Amhara National regional state Bahir Dar town. Bahir Dar is the capital city of Amhara National regional state located in Lake Tana which is the biggest lake in Ethiopia. According to Zonal Health Department, the zone has a total population of 246,380 from this 62,446 live in the urban and the remaining in the rural. The town is divided into 21 kebeles of these 12 are rural, 9 are urban and the rest 3 are Satellite kebeles. Regarding health facilities availability, the town has 1 regional referral hospital, 10 health centers from these 3 in the urban, 4 in the rural and 3 are new non functional, and also the town has 10 health posts. According to the information got from RHB 2002 first half year coverage of the ANC and delivery including Felege hiwot hospital and satellite health posts of the town was 84 and 69 respectively.

4.2. STUDY DESIGN

A quantitative cross sectional study was conducted among ANC clients at Bahir Dar town. A standard questionnaire was developed for exit interview of pregnant mothers. Observation of one health facility (Bahir Dar HC) was done as a sample by using check list.

4.3. STUDY POPULATION

All pregnant women in the study area were the source population. All ANC clients coming to the health center for the first time were the study population. All ANC clients coming to the health center during the study period were the study subject.

Inclusion criteria

- All pregnant mothers who came for the ANC service in the health center

Exclusion criteria

- Clients who were already interviewed and come again during the study period

4.4. SAMPLE SIZE DETERMINATION

4.4.1. Sample size determination for single population proportion

Sample size (n) was determined based on the single population proportion formula and assumption of 39% prevalence (six months performance achievement report of ANC at Bahir Dar Health centers). Expected margin of error (d) is of 0.05 and with 95% confidence level (Zα/2) and 10% contingency for non-response.

Thus

$$n = \frac{(Z\alpha/2)^2 * P (1 - P)}{d^2}$$

$$n = (1.96)^2 * 0.39 (1-0.39)/0.05^2$$

n = 366 + 36 (10% contingency)

n = 402

4.4.2. Sample size calculation for each specific objective

For the objective related to identifying factors affecting client satisfaction of ANC services sample size was calculated. Thus calculating the sample size for each variable was less than the calculation of single population proportion. So I applied the sample size calculated for single population proportion 402.

4.5. SAMPLING PROCEDURE

All three health center providing ANC were involved in the study. The distribution of the samples size to the three health centers was done based on weekly ANC client flow by reviewing data of the health center to get adequate sample. To achieve the desired sample size for the study, the number of pregnant women selected from each health centre was determined by a proportion to population method, i.e. the total number of women sampled from each health centre was in accordance with the

relative proportion of its weekly antenatal clinic's population. All pregnant attendants of ANC during the study period were included. Every pregnant client was interviewed just at the exit of the Ante natal room of the health centers after receiving the health service.

4.6. DATA COLLECTION PROCEDURE

4.6.1. Data collection instrument

A questionnaire was developed by reviewing different materials from, World Health Organization Client satisfaction evaluation (20), Ryan white II client satisfaction survey questionnaire (24). The questionnaire was designed to obtain information on socio demographic characteristics of respondents and their satisfaction level with the different Variables of the ANC services which included time spent with provider, waiting time to get the services, number of visit, the availability of drugs and supplies, and courtesy and respect of the health workers, keeping privacy.

4.6.2. Data collection

Data were collected from July to September, 2010. Six Female nurses who are not working in the study site were recruited and trained for data collection. The nurses recruited to collect data from the nearby health centers and district health offices in order to minimize interviewer bias. Two days training for data collectors and supervisors was conducted and the questionnaire was pretested on twenty ANC clients in newly build health center at shimbet kebele to ensure the quality of data.

Each data collector completed questionnaires by interviewing clients who came on a day, and hence the actual data collection has taken 35 days to complete 402 clients. Regular supervision, spot checking was done during data collection. The collected data was cleaned and checked daily.

4.7. OPERATIONAL DEFINITION

Client Satisfaction**:** In this study clients are said to be satisfied when they have above mean score of the measure of level of satisfaction. Nine Specific questions assess clients' view about whether the ANC clients are satisfied or not. These are the care

given from the health care provider, the way the health worker examine and counsel, cleanness and comfort of waiting place and the HCs compound, waiting times to get the service, time spent with health care provider, the courtesy and respect of services, privacy given during examination and counseling, availability of essential drugs and overall satisfaction of ANC service.

Short waiting time – The clients waiting less than 30 minutes

Long waiting time - The clients waiting more than one hour

4.8. DATA QUALITY MANAGEMENT

The quality of data was ensured through training of data collectors, close supervision and immediate feedback. The questionnaire was pretested with similar health facility. Additionally, each completed questionnaire was cleaned and edited daily so that the consistency and completeness of the data was maintained.

4.9. DATA ANALYSIS

The data was entered into EPI info 3.5.1 and export to SPSS version16 for windows soft ware for analysis. Data cleaning was performed to check for accuracy. Any error identified was corrected by using frequency table staring from code of the questions. Data analysis was performed using frequency and percentage. Bivariat analysis was used to identify independent variables, which explain the dependent variable that would be retained for further analysis at the multivariate stage when p-value ($p<0.2$). The logistic regression was used when the dependent variable is dichotomous and the independent variables are of any type. Since the dependent variable for this study was antenatal care service satisfaction, which is dichotomous (with two outcomes) the writer used logistic regression model. Odds ratio used to look an association between independent and dependent variables. Satisfaction score was computed based on a five point Likert scale, ranging from 1 “very satisfied” to 5 “very dissatisfied" with score of 1=5, 2=4, 3=3, 4=2 and 5=1; sum recoded responses. Nine satisfaction measure variables were identified and sum up the score and have got above the mean score taken as satisfied and also have got below the mean score dissatisfied. The minimum score was 9 and the maximum score was 45. Responses to these questions were on a 5-point scale with higher values indicating greater satisfaction. For each patient, these were averaged to generate scores, which ranged from one to five.

5. Ethical Consideration

Ethical clearance was obtained from Ethical Review committee of University of Gondar (UOG) and Addis Continental Institute of Public Health (ACIPH) and this letter was submitted to Amhara Regional state of Health Bureau. The permission letter was written from Bureau to City administration Health Office and the Health Office to health centers. The permission letter was shown to the head of the individual health centers. After explaining the purpose of the study in detail to the study participants (clients) and informing them that they had a full right to cooperate and participate and they can also decline if they don't want to participate in the study. It was also stressed that information would be kept confidential and it was explained to them that it would never be exposed without their consent. All data were collected after getting full consent from the respondents (clients).

Dissemination of Results

The results of the study would be presented to the Addis Continental Institute of Public Health & University of Gondar and concerned bodies. At the end, the forwarded comments, ideas and suggestions would be incorporated in the Thesis document and then it would be disseminated to concerned government offices: Amhara Regional Health Bureau, Bahir Dar zonal health department, to sampled health centers, NGOs working in the maternal health services, Ethiopian public health association, and other organizations which demand the document. An attempt will be made to publish this study in the national health related journals.

6. RESULTS:

6.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

Among 402 approached clients all gave responses thus the response rate was 100%. Of these 160 (39.8 %), 139 (34.5 %) and 103 (25.6 %) of them were from Bahir Dar Health center, Abay Health center and Han health center, respectively.

Out of the total number of respondents 197(49%) were between 25-34 years, and 183(45.5%) were between 15- 24 years old. The mean age of respondents was 25.5 years with standard deviation of 4.959. Majority of the respondents were 324 (80.6%) orthodox Christians. Regarding their marital status, 362 (90%) were married, 39 (9.7%) were single. While we see educational background of the respondents one 135 (33.6%) of the respondents were illiterate, and 119 (29.6%) of them were secondary school students or completed. One hundred forty seven (36.6%) of the clients did have a family monthly salary of 500 – 1000 Ethiopian birr and 94(23%) of the respondents didn't know their income. Three hundred twenty four (80.6%) of the respondents were urban dwellers. Three hundred eighty five (95.8%) of the respondents were Amhara ethnicity. (table1)

Table 1 – Socio demography characteristic of the study population, in Bahir Dar HCs 2010 (n=402) variable frequency in percent

Variables	Frequency	%
Age/Year		
15-24	183	45.5
25-34	197	49
≥35	22	5.5
Variable	Frequency	percentage
No of pregnancy (gravidity)		
First pregnancy	180	44.8
Second pregnancy	133	33.1
Third pregnancy	58	14.4
Fourth & above pregnancy.	31	7.7
Gestational age		
first trimester	36	9
Second trimester	180	44.8
Third trimester	179	44.5
Reason for visit		
Follow up	347	86.3
Illness	53	13.2
Others	2	0.5
No Of visit		
First visit	155	38.6
Second visit	135	33.6
Third visit	66	16.4
Fourth and above	46	11.4
TT immunization		
Yes	392	97.5
No	5	1.2
I don't know	5	1.2

Table 2 - Maternal health service utilization the study population, in the Bahir Dar health centers, 2010 (n=402) Variables frequency in percent number

Marital status		
Married	362	90
Single	39	9.7
Religion		
Orthodox	324	80.6
Muslim	64	15.9
Others	12	2.9
Ethnicity		
Amhara	385	95.8
Others	17	4.2
Occupation		
House wife	188	46.8
Government	69	17.2
Daily laborer	41	10.2
Private sector	35	8.7
Others	33	8.21
Student	28	6.7
Educational status		
Illiterate	135	33.6
Secondary level	133	33.1
Primary level	60	14.9
College level and Above	72	17.9
Address (residence)		
Urban	324	80.6
Rural	78	19.4
Monthly household income in birr		
Less than 500	58	14.4
500 – 1000	147	36.6
1001 - 1500	36	9.0
More than 1500	67	16.7

6.2 MATERNAL HEALTH SERVICE UTILIZATION IN THE STUDY POPULATION

When we see the Maternal health and health service utilization of the mother, the mother who came to health center 180 (44.85%) were in their first pregnancy and 133 (33%) were in second pregnancy. Most mother came to study health centers during second and third trimester 180 (44.8%) and 179 (44.5%)

6.3. SATISFACTION SCORES OF CLIENTS ON ANC SERVICE

Base on Likert scale the mean summary score were found to be 36.65 (81.4%). Taking the mean summary score of satisfaction as cut off point, 185 (46%) of the respondents were found to have satisfaction at and above mean of satisfaction score (that is 46 and above) and 217 (54%) below mean of satisfaction score (below 46). From satisfaction indicator variables, respect and courtesy given to clients and the way the HWs examine were the two top mean scores 4.29 and 4.26 respectively. Whereas overall cleanness and comfort of the waiting area, examination room and the compound (1.84) was the least mean score (Table 3).

Table 3- Satisfaction score of the study population, in the Bahir Dar health centers, 2010 (n=402)

Independent variables	Mean Score (SD *)
1. Care given from HW	4.21(0.52)
2. Time spent with Health care provide	4.24(0.64)
3. Respection & courtesy given from HWs	4.29(0.63)
4. The way the HWs examined	4.26(0.56)
5. Privacy given	
3.87(0.94)	
6. Waiting time to get the service	4.10(0.73)
7. Availability of drugs	3.26(0.74)
8. Cleanness & comport of the HC	1.84(0.55)
9. Level of satisfaction on ANC service	4.23(0.60)
10. Overall satisfaction score	4.21(0.52)
11. Summery mean score	36.65(3.50)

6.4. FACTORS AFFECTING SATISFACTION WITH RESPONSES OF ANTENATAL CARE RECEIVED

Among ANC users (clients); 395 (98.5%) were comfortable with convenience of the schedule of the HCs, 380 (94%) of clients appointed to come again but only 340 (84.6%) of the clients were told to keep their appointment. In the study sites there was no delay in the registration process 311 (77.4), adequate time given to examined and advised 389 (96.8%) with privacy 385 (83.3%). Majority of the respondents 390(97%) reported that they were respected by the health care providers. However, most of the respondents 235(85.5%) claimed that even though the health care providers ordered laboratory investigation only 158(46%) of them had got the service in the HCs. Among the total respondents drugs were prescribed only 158 respondents of which only 90clients had received the ordered essential drugs and supplies at the health centers (Table 4).

Table 4 – factors affecting satisfaction with response of ANC services, in the Bahir Dar health centers, 2010(n=402)

Satisfaction variable	Frequency (%)	
	Yes	No
Convenience of Schedule of the HC	396 (98.5)	2 (0.5)
Appointed to come again for follow up	380 (94)	22 (5.5)
Telling to keep the appointment	340 (84.6)	51 (12.7)
Delay in the HC registration process	91 (22.6)	311 (77.4)
Adequate time to examine and advice	389 (96.8)	13 (3.2)
The HWs respection and courtesy	390 (97)	12 (3)
The privacy given during examination and advice.	385 (83.30	67 (16.7)
Laboratory ordered to you	235 (58.5)	167 (41.5)
Getting the ordered laboratory in the HC	185 (46)	54 (13.4)
Drug ordered to you	158 (39.3)	244(60.7)
Availability of essential drugs and supplies	90 (22.4)	68 (17.2)
Recommendation of the services	319 (79.4)	83 (20.6)

6.5. FACTORS POTENTIALLY ASSOCIATED WITH CLIENT SATISFACTION

Analysis was done to look at the association of different variables with client's satisfaction. Non adjusted association was done and no association was found between satisfaction and age, education, religion, and income. Non adjusted association was found between number of visit ($p< 0.023$), waiting time to get the

service (p< 0.0001), time spent with health professional (p < 0.053), and reason for visit (p<0.029).Clients who came for follow up are two time more satisfied than who came for illness and mothers who are housewife were more satisfied than government employee (p<0.002). However when adjusted odds ratio was calculated among variables and, significant association was found between clients who are waiting time to get the service more than an hour less satisfied than waiting less than 30 minutes (AOR=0.159, 95% CI= (0.055, 0.454)) and (p<0.0001). Clients who have spent time with health professional eight to ten minutes less likely to satisfied than those who are spent more than ten minutes (AOR= 0.432, 95% CI = (0.204,0.914)) (Table 5).

Table 5- Comparison of client satisfaction on ANC services by selected socio – demographic characteristics and other variables in the Bahir Dar health centers, 2010 (n=402)

Variables	**satisfied**	**dissatisfied**	**COR (95% CI)**	**AOR (95% CI)**
Age				
15-24	90(49.2)	93(50.8)	1.00	1.00
25-34	113(57.4)	84(42.6)	0.719(0.480, 1.0780)	2.567(0.776, 8.493)
Occupation				

Government	44(63.8)	25(36.2)	1.00	1.00
NGO Private	30(71.4)	12(28.6)	0.704(0.304, 1.615)	0.620(0.226,1.696)
House wife	89(47.3)	99(52.7)	1.958(1.109,3.456)	2.283(0.950,5.487)
Daily laborer	21(51.2)	20(48.8)	1.676(0.765,3.674)	1.899(0.647,5.570)
Monthly income				
<500	30(51.7)	28(48.3)	1.00	1.00
500 – 1000	75(51)	72(49)	1.029(0.560,1.889)	2.425(0.935,6.294)
1001 – 1500	22(61.1)	14(38.9)	0.682(0.293,1.587)	1.118(0.145,8,597)
>1500	44(65.7)	23(34.3)	0.560(0.272,1.152)	140(0.550,8.329)
Waiting time				
<30 minutes	89(41)	128(59)	1.00	1.00
½ - 1 hr	103(66.5)	52(33.5)	0.351(0.228, 0.539)	0.377(0.222, 0.643)*
>1 hr	25(83.3)	23(34.3)	0.139(0.051, 0.377)	0.159(0.055, 0.454)*
Number of visit				
First	87(56)	68(44)	1.00	1.00
Second	81(60)	54(40)	0.853(0.534,1.362)	0.869(0.527,1.433)
Third	33(50)	33(50)	1.279(0.718,2.279)	1.063(0.567,1.992)
Fourth& above 16	(34.8)	30(65.2)	2.399(1.210,4.757)	1.643(0.788,3.426)
Time spent with HW				
>10 min	159(51.3)	151(48.7)	1.00	1.00
8 – 10 min	44(67.7)	21(32.3)	0.503(0.285,0.885)	0.432(0.204,0.914) *
< 8 min	14(52)	13(48)	0.978(0.445,2.148)	1.180(0.406,3.432)
Reason for visit				
Follow up	180(52)	167(48)	1.965(1.063,3.630)	1.755(0.750,4.198)
Illness	36(68)	17(32)	1.00	1.00

6. 6- RESULTS FROM CHECK LISTS

To assess minimum resources, laboratory and pharmacy minimum packages in study HCs, checklists were used based on ANC Guideline in Ethiopia. The results showed the sample health center (Bahir Dar HC) fulfilled all minimum packages as indicated in the ministry of health guideline for Ante Natal Service. Health care provider expected to wash their hands, greeting clients, review previous client's records, examine and counsel the clients accordingly. So the health care provider did as set in

observation checklist. But some procedure lack during my observation those are, not washing hands, not reviewing previous pregnancy, and not orient women alarm sings. In relation to human resource no BEmONC trained health workers but the HC have assigned one midwives and one clinical nurses trained on PMTCT working with them. All essential equipment used for the ANC room at least one available. Where as IEC materials for counseling like family health card not available. In pharmacy dispensary room I found that some essential drugs like Iron folate. The principal investigator observed three clients during examination and counseling in different days. Almost the same finding seen in three clients with the same health care providers (checklist attached in the annex)

7. DISCUSSION

This study examined the satisfaction of clients on antenatal care services in the health care centers as perceived by women, among a Bahir Dar antenatal population in Amhara regional State. The final result of this study showed that almost half of the patients were not satisfied with the service that they had received (54%), while

satisfied (46%). Similar study which was conducted by S.D Pitaloka et al (13) illustrated that level of satisfaction of the patients was higher than this result. From 150 pregnant women who were received prenatal care at maternal hospitals reported being satisfied with overall of the service that they had received was 56.7%. Another study in four developing countries demonstrated that more than three fourth of the pregnant women were satisfied (90%) towards the overall antenatal care service provided by the maternal and child health hospital (10). The result of this study showed that standard model was more satisfied with service that they had received compared to new model. However, this difference is not statistically significant. One of the possible explanations for the non-significant finding is because the number of visit for new model was less compared with standard model.

In relation to socio demographic characteristics this results similar with the study which conducted in MCH service utilization in India (11). The finding of this study showed that median age of women in this study was 25.5 years, and their age ranged from 15 to 44 years two age groups were not significantly different ($p>0.05$). Therefore, there was no significant relationship between level of satisfaction and age. However, study in Thailand MCH Hospital did show that Education of pregnant women, their monthly family income, distance from their residence, means of transportation and convenience of transportation were found to have statistically significant association of the level of client satisfaction (18). Majority of the respondents were Orthodox Christian 324(80.6%). Regarding to marital status 362(90%) were married.

The explanation of this finding may be because this study was conducted at urban area health centers, so people in whatever level of education may have similar expectation with the service that they will get. The finding was similar with the study which conducted in Bangladesh and Thailand (6, 18).The result of their study showed that there was no relationship between satisfaction and education level. However, study which conducted in India found that Literacy affected satisfaction in inverse way. With increasing Literacy, satisfaction appeared to be decreasing (11).

Regarding the patients' occupation, the result from this study showed that there was no significant relationship between patients who were working and with the level of satisfaction but there was association between being house wife and satisfaction (p value >0.024) and OR (95%CI) = 1.958(1.109, 3.456) The explanation of the significant finding is because the expectation between house wife and working

mothers may have different characteristics and perception on the service they get. But study by Pitaloka and Rizal showed that no relation between occupation and satisfaction (13).Villar J. also explained that patients with higher incomes tend to be less satisfied (16). However, it was not shown in this study where the median house hold income of the mother were not statistically different ($p>0.05$). It is because most of patients live in urban area, so there is no difference expectation even they have high or low family income.

The gestational age (clients who came at third trimester more satisfied than first and second trimester) affected women's satisfaction in terms of both total satisfactions with prenatal care. Some researchers have reported that the demographic characteristics of pregnant women influence the women's satisfaction with prenatal care services (9, 10). Women who rated highest in terms of economic, educational, employment and other social resources reported the highest levels of satisfaction (12). There were statistically significant correlations between satisfaction with prenatal care and the women's socio demographic characteristics but not seen in this study. As to this study there was no association between satisfaction scores and age, educational level .There are similar findings in other studies based on this characteristics (17). However, after adjusting other factors, pregnant women who had poor satisfaction with antenatal care services were 4.6 times more likely to inadequately utilize the antenatal care compared to those who had high satisfaction. The difference could be attributed to the difference in method of data collection whether it is community based or facility based.

185 (46%) of the respondents were found to have satisfaction at and above mean satisfaction score. This satisfaction level report is slightly higher when compared to the reports of the studies conducted in terms of the mean score, 185(46%) the women were satisfied with prenatal care services but the study in four developing countries the all over satisfaction showed that more than 90% of women in both ANC models said that they were "very satisfied" (10) but it is not comparable with studies conducted in developing countries 68 % in rural Bangladesh (6). Measuring satisfaction of ANC services, frequent health center visits are another characteristic of antenatal service. One of the factors which related with the continuity of care was the number of visit. This study reported that no relationship exists between number of visit and the patient's total satisfaction score. It is different with the finding of other study. The study conducted by Pitaloka and Rizal showed that Number of visit one of

predicator of satisfaction specially mothers who came fourth and above more satisfied than those who were came first and second (13). Study conducted in developing countries like ours showed that less satisfied with reduced number of visit (10). This may indicated those mothers who were satisfied with the service came repeatedly.

This study showed that there was positive correlation and significant relationship between level of satisfaction and waiting time whereas patients who wait shorter time were more satisfied compare with patients who wait long time Nevertheless, result from Pitaloka showed that there was no significant relationship between level of satisfaction and waiting time (13). One of the explanations of the significant finding is that the respondents realized and recognize the drawbacks of ANC services like others, hinder clients too.

In this study mothers waiting less than 10 minutes seven times satisfied than waiting more than one hour (OR 0.159 CI = 0.055,0.454). In accord with practices in all government health facilities in Bangladesh people coming to the health centers registered and waiting to get the services. A significant proportion of users about a third (28.2%) of all users was not satisfied with the time they waited to receive care (6) and (75.4%) for non satisfaction with the overall perceived quality of care in the clinic was wasting of time followed by lack of privacy(11). Similar to other studies has shown that long waiting time for being seen by health providers are associated with less satisfaction. A study in Eastern Ethiopia showed that short waiting time for registration and being seen by a health provider are associated with high satisfaction score (18).

Although the time spent with the provider during consultation was significant association with satisfaction. Most women considered the time spent with health care provider to be appropriate. Reason for time spent with health care providers another higher association with satisfaction rate in this study could be attributed to unwillingness of clients to express their dissatisfaction feeling of the services they received even if the interviewer for this study was taken out of the health centers.

In other studies on the quality of ANC services in south east Nigeria, satisfaction on drugs and supplies in the health center pharmacies was 65.4 % , which is higher

compared to this study where 22.4 % (mean of 3.26 out of 5 score) of the respondents are satisfied with availability of drug and supplies (13,14). The reason may be this study was done to the assess client satisfaction of services in relation to ANC services only which is drugs for ANC like iron folate, Similarly, many studies have also indicated that patients equate availability of drugs with high quality services; a study conducted in Kenya reported drug availability in health facility had a positive impact on demand for services(12).And also concluded that the availability of drugs in the rural health facilities brought satisfaction not only to the users, but also to the providers (12).

Highest satisfaction rate in this study (97%) was associated with the courtesy and respect of the health care providers. This is similar finding when compared with the finding of the study conducted in the squatter settlement of Karachi (>95%) however, it is higher than Thailand MCH hospital study that showed nearly (91.8%) (10). Satisfaction rate on good provider greeting and respect in the governmental family planning service delivery points including the hospital (17).

.As in other reports on women's perception of quality of antenatal care, respondents in this study expressed satisfaction with the care received, (79.4%) would recommend the health facility to friends and would receive care in the same health facility(8).

However, it is important to note that observed technical quality of care is unlikely to achieve the same level of satisfaction compared to its perception by women. Contrary to the report of women, usage of checklist considering history taking, physical examination by an observer during consultation might expose the deficiency in the actual technical quality of care more so that women spent an average of 5 minutes for consultation.

Strength and Limitations of the study

Strength

- Data collectors were similar sex.
- There was no none response rate.
- There was method triangulation by using observation check list

Limitations

- Like any cross sectional study it fails to show causal relationship
- Lack of similar study in the country to compare results
- The study conducted at government Facility, may lack to show mothers who are attending private sectors.
- Only observation done in one HC from the three study sites (HCs)

8. Conclusion

Almost half of the clients were satisfied with the service that they had received. Whereas other studies conducted in developing countries showed satisfaction of clients was higher better than this study.

The result also found that from all of the risk factors which can influenced the level of satisfaction only time spent with health care provider and waiting time were the significant predictors of satisfaction level. Result from Pitaloka showed that there was no significant relationship between level of satisfaction and waiting time.

Keeping privacy of clients, improve cleanness and comfort of the health center which were considered by the health center management helped to improve the level of patients' satisfaction in antenatal care.

Availability of essential drugs and supplies in this study sites was low but in other studies on the quality of ANC services in south east Nigeria, satisfaction on drugs and supplies in the health center pharmacies was, which is higher compared to this study .And also study conducted in Kenya reported drug availability in health facility had a positive impact on demand for services

This study has provided an insight into an important but often neglected aspect of antenatal care client satisfaction that is necessary to improve on the quality of ANC services.

9. Recommendation

The following recommendations may help to realize the objectives of ANC client satisfaction by maximize level of client satisfaction for the improvement of quality of ANC services. These recommendations include:

- Avoid lengthy waiting time of mothers to enter to the service provider, laboratory department and drug dispensary by arranging enough room for examination and recruiting sufficient health workers.

- Build waiting area and equipped with teaching aids.

- Health care provider should give enough time to examine and counsel for clients according to national standards.

- The cleanliness and comfort of the health centers is also very important factor to increase the utilization of the services.

- Cleanliness of the health centers should be ensured.

- Keeping privacy needed to be strengthened and encourage mothers for the utilization of the services.

- The health center should prepare curtail (screen).

- Maintain availability of essential drugs in relation to ANC services

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Annexes

ANNEX I. QUESTIONNAIRE

ENGLISH VERSION QUESTIONNAIRE ACIPH and UoG joint MPH program

Exit Interview Questionnaire for data collection on the assessment of clients' satisfaction on Ante natal care services provision in Bahir Dar health centers.

IDENTIFICATION

Type of institution ---------- Name of the institution----------

Address of the institution---------- Institution code No ----------

GENERAL INSTRUCTION

All questions have pre-coded response. It is therefore very important to follow the following instructions while you are interviewing respondents and recoding their answer

- Ask each question exactly as it is written on the questionnaire.
- Do not read the pre code response to respondents. Listen only to the response of respondents.
- Circle the responses in the response column that best matches to the answer of the respondent

PART ONE: SOCIO – DEMOGRAPHIC CHARACTERISTICS

No	Questions	Response
101	Age	in Year
102	Marital status	1- Single 2 –Married 3 –Divorced 4 –Widowed
103	Educational status	1 – Illiterate 2 – Grade 1 – 4 3 – Grade 5 – 10 4 - preparatory 5 – Diploma and above
104	What is your Religion	1 – Orthodox 2 – Muslim

		3 – Protestant 4 – catholic 99 – others(specify)
105	What is your ethnicity	1 – Amhara 2 – Tigrie 3 – Oromo 4 – Agew 99 – other(specify)
106	Occupation	1 - Government employee 2 - NGO employee 3 - Private sector employee 4 - House wife 5 - Daily laborer 6 - House maid 7 -Student 8 -Jobless 99 –Others(specify)
107	Address -Residence	1 – Urban 2 – Rural
108	Monthly income in Eth birr	

PART TWO: Maternal Health and health service utilization

No	**Questions**	**responses**
201	Number of pregnancy(gravidity)	1 – first pregnancy 2 – second pregnancy 3 – third pregnancy 4 – fourth and above
202	What is your gestational age	In months
203	Reason for visit	1 – Illness 2 – Follow up 99 – others(specify)
204	TT immunization	1 – Yes 2 – No 99 – I don't know

PART THREE: CLIENTS SATISFACTION ON ANC SERVICES

No	Questions	Responses
301	Is the schedule of the Health center convenient for your visit?	1-Yes 2-No 99 - I don't know
302	How much are you satisfied with the care given from health worker?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
303	How many times you came to this health center for ANC follow up?	1-the first visit 2 – 2nd visit 3 – 3rd visit 4 – 4th and above
304	Was there any delay in the health center's registration process?	1– Yes 2– No 99 - I don't know
305	How long did you wait before you are allowed to enter in the ANC room?	1. < 30 minutes 2. 1/2 – 1 hours 3. 1 – 2 hours 4. 2 – 3 hours 5. > 3 hours
306	Does the health worker take adequate time to examine and advice you?	1. yes 2. No
307	If the answer to Q- No 310 is yes, How much time spent with the provider	1. > 10 minutes 2. 8 – 10 minutes 3. 6 – 8 minutes 4. 4 – 6 minutes 5. < 4 minutes
308	Are you satisfied with the time spent with health care provider?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
309	Does the health worker give respect and courtesy during your visit?	1. yes 2. No

310	If yes, How much are you satisfied with the HWs respection and courtesy given to you?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
311	How satisfied are you by the way the health workers examined you?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
312	Does the health center keep your privacy during your ANC Visit?	1. yes 2. No
313	If the answer to Q-316 is yes, How much do you satisfied with the privacy given to you?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
314	Does the care giver appointed you to come again for ANC follow up	1 – Yes 2– No
315	Health care providers told you how important it is to keep your appointments.	1 – Yes 2– No
316	Do you keep the appointment and come again to this HC	1 – Yes 2– No
317	Were any Laboratory ordered to you?	1 – Yes 2 – No
318	If yes, did you get all the ordered procedures in the health centers?	1 – Yes all 2 – Some only 3 – None
319	If yes, how long did you wait to give the specimen and receive your result?	1 – Less than 1 hour 2 – 1 – 2 hours 3 – More than 2 hours

320	How long did you wait to see the Health worker after receiving your results?	0 – Not ordered 1 – Less than 1 hour 2 – 1 – 2 hours 3 – More than 2 hours
321	How satisfied are you by the waiting time to get the ANC service?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied
322	Were drugs ordered to you?	1 – Yes 2 – No
323	If yes, do you able to get them in the health center pharmacy?	1 – Yes all 2 – Some 3 – None of them
324	How satisfied are you with the Availability of drugs and supplies?	1 – Very satisfied 2 – Satisfied 3 – Neutral 4– Dissatisfied 5– Very dissatisfied
325	How do you evaluate the overall Cleanliness and comfort of the waiting area, examination room and the compound?	1. very good 2. good 3. fair 4. bad 99. No response
326	Would you recommend the services of this health center to someone else?	1 – Yes 2 – No 99 – I do not know
327	How do you rate your overall level of satisfaction regarding the delivery of the ANC service you received?	1 – Very satisfied 2 – Satisfied 3 - Neutral 4– Dissatisfied 5– Very dissatisfied

ANNEX II. AMHARIC VERSION QUESTIONNAIRE

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201	ÃI [illegible]`Ó´" e"}— '¬;	¾SËS]Á----------1 G<K}—----------2 fe}—----------3 ›^}—" Ÿ²=Á uLÃ-------4	
202	¾e"*ƒ* ¨` 'õcÖ<` '*ƒ*;	¨`----------	
203	Ö?" ×u=Á ¾SÖ<*ƒ* uU" U¡"Á*ƒ* '¬;	uISU----------1 pÉS ¨K=É ¡*ƒƒ*M----2 K?L ÃÑKê---------99	
204	¾S"ÒÒ qMõ ¡*ƒ*v*ƒ* ›Ó˜}ªM;	›"----------1 ¾KU----------2 ›L¬pU--------77	

ŸõM:3 ¾pÉS ¨K=É ›ÑMÓKA*ƒ* `"" KT¨p ¾}²ÒË ØÁo

301	¾Ö?" ×u=Á¬ ¾e^ c¯*ƒ* ¾pÉS ¨K=É ¡*ƒƒ*M KTÉ[Ó U‡ '¬ ¨Ã;	›"----------1 ¾KU----------2 ›L¬pU--------77	
302	u}cÖ*ƒ* ¾pÉS ¨K=É ›ÑMÓKA*ƒ* U" ÁIM [¡}ªM;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿'*ƒ* ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
303	KpÉS ¨K=É ¡*ƒƒ*M c=SÖ< Ke"}— Ñ>²? '¬	¾SËS]Á----------1 G<K}—----------2 ›^}—----------3 ›^}—" Ÿ²=Á uLÃ-------4	
304	uÖ?" ×u=Á¬ ¾U´Ñv H>Å*ƒ* ¬eØ S²Ó¾*ƒ* 'u`;	›"----------1 ¾KU----------2 ›L¬pU---------99	
305	¾'õc Ö<` U`S^ ¡õM KSÓv*ƒ* uÓU*ƒ* U" ÁIM Ñ>²? Öul;	ŸcLd Åmn u‹---------1 Ÿ30Åmn-1cœ*ƒ*----------2 1-2 c›*ƒ*----------3 2-3 cœ*ƒ*----------4 Ÿ3 cœ*ƒ* uLÃ----------5	
306	`e" KSS`S`" KSUŸ` ¾Ö?" vKS<Á¬ ¾¨cÅ¬ Ñ>²? um '¬ ÃLK<;	›"----------1 ¾KU----------2	
307	› "K< U" ÁIM Ñ>²? ¨cÅ;	10 Åmn uLÃ---------1 Ÿ8-10 Åmn----------2 Ÿ6-8 Åmn----------3 Ÿ4-6 Åmn----------4 Ÿ4 Åmn u‹---------5	

308	ŸÖ?“ vKS<Á Ò` u’u[ƒ ¾Ñ>²? qÃ [¡}ªM;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
309	uU`S^ ¨pƒ Ö?“ vKS<Á¬ ¾’u[¬ ›k^[w“ ›ÁÁ´ Ø\ ’u`;	›”----------1 ¾KU----------2	
310	›” "K< uÖ?“ vKS<Á¬ ›ÁÁ´“ ›k^[w U” ÁIM [¡}ªM;	u×U [¡‰KG<-------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
311	¾Ö?“ vKS<Á¬ ¾U`S^“ ¾›S"Ÿ` G<’@}¬ ›`¡„M;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
312	upÉS U`S^ ¨pƒ ¾Ö?“ vKS<Á¬ ŸKL (¾}K¾ ¡õM) } ÖpSM;	›”----------1 ¾KU----------2	
313	SMc< › ŸJ’ uŸKL (¾}K¾ ¡õM) ›ÖnkS< U” ÁIM [¡}ªM;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
314	uK?L Ñ>²? ”Ç=SKc< kÖa } cÖM;	›”----------1 ¾KU----------2	
315	¾Ö?“ vKS<Á¬ kÖa” SÖup ÖkT@¬” ’ÓaM;	›”----------1 ¾KU----------2	
316	kÖaƒ” ÁŸu\ ÃS×K<;	›”----------1 ¾KU----------2	
317	uU`S^ ¨pƒ ¾i”ƒ“ ¾ÅU U`S^ µKM ¨Ã;	›”----------1 ¾KU----------2	
318	›” "K< G<K<”U ¾²²Mƒ” U`S^‹ uÖ?“ ×u=Á¬ ›Ñ–<;	› G<K<”U ›Ó˜‰KG<---1 ¾}¨c’----------2 U”U ›LÑ–G<U----------3	
319	Lw^„] ŸH@Æ uL “S<“ KSeÖƒ“ ¬Ö?ƒ KSkuM U” ÁIM Ñ>²? ¨cÅw;	Ÿ 1 cœƒ u‹--------1 Ÿ1-2 cœƒ----------2 Ÿ2 cœƒ uLÃ----------3	
320	Ÿ¬Ö?ƒ uL ¾S[S[ƒ” vKS<Á KTÓ–ƒ U” ÁIM Ñ>²? ðËw;	Ÿ 1 cœƒ u‹--------1 Ÿ1-2 cœƒ----------2 Ÿ2 cœƒ uLÃ----------3	
321	upÉS ¨K=É U`S^ ›ÑMÓKAƒ ¾Ñ>²? qÃ [¡}ªM;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
322	SÉG’>ƒ µMM ¨Ã;	›”----------1 ¾KU----------2	
323	›” "K< ¾²²Mƒ” SÉG’>ƒ ŸÖ?“ ×u=Á¬ ¾SÉG’>ƒ SÅw` ›Ñ–<;	› G<K<”U----------1 ¾}¨c’----------2 U”U----------3	

324	uÖ?“ ×u=Á¬ SÉG’>ƒ ›p`xƒ“ ›c×ƒ LÃ [¡}ªM ¨Ã;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U----5	
325	u›ÖnLÃ ¾Ö?“ ×u=Á¬” ¾SqÁ x & ¾U`S^ ¡õM ”êl“ “ UŒƒ ”Èƒ ›¿ƒ;	u×U Ø\----------1 Ø\----------2 Ål“----------3 SØö----------4 SMe ¾KU----------5	
326	¨Å Ö?“ ×u=Á¬ K?L c¬ SÙ ”Ç=ÖkU ÃS¡^K<;	›”----------1 ¾KU----------2 ›L¬pU--------3	
327	u›ÖnLÃ upÉS ¨K=É ›ÑMÓKAƒ ›c×Ø u}SKŸ} `"” ”Èƒ ÃS´’<M;	u×U [¡‰KG<--------1 [¡‰KG<----------2 M¿’ƒ ¾KU----------3 ›M["G<U----------4 u×U ›M["G<U-------5	

ANNEX III. ANTENATAL CARE SERVICE OBSERVATION CHECKLIST

Date of the observation (dd/mm) ___/___/___ Starting time _____

Name of Interviewer, team number _____

ID# of Service provider ___ ___ ___ ___

Hello, my name is _____, and I am a member of the team, which conducts this survey for MPH thesis. I would like to sit in the room and observe while you are examining your client. Its goal is to improve the quality of Antenatal care health services in the health center. All information from this survey is confidential and is not identified with any facility name. Is it ok with you if I watch when you see your client? If you agree, let me know any time that you would want me leave the room. Thank you.

Use the following guide to mark the results of your observations:

Visit frequency _____

Observation of services provision in Bahir Dar HCs one of the three HCs, 2010

1 = Done 2 = Not done 3 = Unsatisfactory 4 = Not applicable

No	Item	1	2	3	4
1	Check for the availability of washing facilities (water, soap, towel)			√	
2	Wash hands with soap and dries them			√	
3	Greets and calls client by her name and introduce her /himself	√			
4	Reviews clinic record before starting the session and check about previous pregnancy, number, and outcomes			√	
5	Take pulse rate, blood pressure and temperature	√			
6	Examine skin, conjunctivae, legs for edema, redness, and varicose veins, thyroid, mouth, breasts, heart and lungs			√	
7	Palpates uterus to detect fetal position and measure uterine height, abdomen circumference and listens to the fetal heart rate (18 weeks and above pregnancy)	√			
8	Determines weeks of pregnancy and probable delivery	√			

	rate and informs about the progress of pregnancy				
9	Informs woman about her and fetus' health condition	√			
10	Informs woman about any complication and management of common pregnancy-related afflictions			√	
11	Orients woman for the place of delivery (hospital, HC contacts)			√	
12	Orients woman about personal hygiene, rest, and general care	√			
13	Orients woman about STD prevention			√	
14	Orients woman about alarm signs: pain, fever, bleeding, and loss of vaginal fluid			√	
15	Counsels about nutritional need	√			
16	Prescribes iron and folic acid	√			
17	Informs woman side effects of medicines during pregnancy				√
18	Orients woman breast feeding, baby vaccination and use of Contraception		√		
19	Solicits questions to ensure client has understood		√		
20	Schedules the next appointment according to health needs and woman's convenience	√			
21	Records all findings, assessments, diagnosis, and care with client	√			
22	Thanks client for her time		√		

Minimum clinical package for ANC services

S.No	Category	Specific Item	number	Seen by evaluator
1	Human resources	Health officer trained on BEmONC	0	
		Midwives nurses	1	
		Clinical nurse		
2	Infrastructure	Private Examination room	1	
3	Equipment and supply	Exam tools and supplies		
		-Fetoscope	1	
		-stethoscope	1	
		-blood pressure cuff	1	
		-MUAC	1	
		-Weight scale	1	
		-Measuring tape	0	
		- counseling tools, FHC	0	
		- Examination bed	1	

4	M&E tool	ANC Registration book Report format	1 1	
5	Referral system	Referral format	1	

Pharmacy minimum package

S.no	category	specific items	No.	seen by evaluator
1	Human resources	Pharmacist , dispenser	2	
2	Infrastructure	shelf	3	
3	Equipment and supplies	All essential drugs, Iron folate		Sample drugs seen and all available
4	monitoring and evaluation (management information system)	Report form		available

Laboratory minimum Package

S.no	category	specific items	No.	seen by evaluator
1	Human resources	Lab. technician	3	
2	Infrastructure	Separated room	1	
3	Equipment and supplies	Different reagent		available
4	monitoring and evaluation (management information system)	Reporting form		available

ANNEX IV. INFORMED CONSENT FORM

Greetings:

Hello, how are you?

My name is ----------. I am currently a student in the ACIPH joint PMH with UOG, public health Department, who is now going to conduct a survey. I would like to interview you few questions about the service provision of ANC of this health centers. The objective of the study is to assess the level of clients' satisfaction with the ANC services of the health centers and to identify the factors affecting the satisfaction of clients in Bahir Dar health centers, which will be important to improve the health service delivery of the health centers. Your cooperation and willingness for the interview is very helpful in identifying the problems related to the issue. Your name will not be written in the form and I assure you that all information that you give

will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any question you do not wish to answer. If you are not still comfortable with the interview, please feel free to stop it any time you like. Do I have your permission to continue?

1 – If yes, continue to the next page

2 – In no, skip to the other participant

Interviewer's name and code----------, signature----------

Date if interview----------, Time started _____, Time finished ----------

Supervisor's name ----------, Signature ----------

I thank you for your cooperation

Declaration

I the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university, and that all sources of materials used for the thesis have been fully acknowledged.

Name: Mulu Haliu

Signature:_____

Place:_____

Date of Submission: _____

This thesis has been submitted for examination with my approval as university advisor.

Advisor's Name Ewenat G/Hanna

Signature_____

Date_____